

## **WALL MOUNTED BATHROOM SUPPORT BARS WITH INTEGRAL MOUNTING FLANGE**

### **BACKGROUND OF THE INVENTION**

**[0001]** This invention relates to a bar, such as a grab bar or a towel bar, as are utilized in bathrooms, wherein the bar is mounted to a wall with a mounting flange formed integrally with the bar.

**[0002]** Grab bars and towel bars are utilized in bathroom applications either to provide support for an individual in a bathtub or shower, or to hold towels. Typically, such a bar includes a member extending along a direction that will be parallel to the wall, with ends turned towards the wall to be mounted to the wall. In the prior art, a separate mounting flange was welded to the ends of the bar, and secured to the wall. A cover is received on the bar, and covers the mounting flange once mounted to the wall.

**[0003]** There are known attachment devices for tubes or pipes that have utilized an integral mounting flange. However, these devices have generally been utilized on rectangular tubes, and not on the cylindrical-shaped tubes as typically utilized as a grab bar or towel bar. Moreover, these mounting flanges have never been utilized in a bathroom type support bars of the sort having covers associated with each end.

### **SUMMARY OF THE INVENTION**

**[0004]** In the disclosed embodiment of this invention, a tube for use as a bathroom support has a mounting flange integrally formed with the tube body. Ends of the tube body are slit, and tabs are bent radially outwardly. Holes are formed in the tabs to receive fasteners. The mounting flange may then be mounted directly to the wall, without the

requirement of a separate welding step, or a separate mounting flange to be mounted to the bar. Thus, the cost, complexity and inventory of the prior art is reduced. As is known in the bathroom support bar art, covers are placed over the mounting flange once the bar is secured to the wall.

[0005] These and other features of the present invention can be best understood from the following specification and drawings, the following of which is a brief description.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0006] Figure 1A is a partially cut-away view showing an inventive bathroom support rod.

[0007] Figure 1B is an end view of one end of the rod.

[0008] Figure 2A shows a first step in the formation of the inventive bathroom support rod.

[0009] Figure 2B shows a subsequent step.

[0010] Figure 2C shows another subsequent step.

### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

[0011] Figure 1 shows a bathroom support rod 20 such as may be utilized as a grab bar in a bathroom or shower, or as a towel support. A central bar portion 22 extends to mounting ends 23 which bend towards a wall to receive the support bar 20. As can be seen, covers 24 are placed at each end to hide the underlying mounting flange. The covers are a separate part, and are moved along the bar 22, and over the mounting flange once the mounting flange is secured to the wall.

**[0012]** As can be seen, the mounting flange includes a plurality of tabs 26 bent radially outwardly from the end 23. Holes 28 are formed to receive fasteners to secure the mounting flange and hence the bar 20 to a wall. As can be appreciated, the tabs 26 are formed integrally with the tube 22. As can also be seen in Figure 1B, thin wall bar 22 has a cylindrical cross section.

**[0013]** As can be appreciated in Figures 2A-2C, the bar 22 can be easily made. First, in Figure 1A, a piece of bar stock 30 has ends 31 bent to provide the portion (23) extending towards the wall in the finished product. As shown in Figure 2B, slits 32 are then formed in the ends 31. Preferably, three slits are made equidistant around the circumference of the bar 30. As shown in Figure 2C, the slits then allow the bending of the tabs 26 radially outwardly. Holes 28 are then formed in the tabs 26 to receive a mounting element.

**[0014]** The present invention thus provides a mounting bar that can be secured to a wall through a mounting flange formed integrally with the bar. No separate parts are required.

**[0015]** Although a preferred embodiment of this invention has been disclosed, a worker of ordinary skill in this art would recognize that certain modifications would come within the scope of this invention. For that reason, the following claims should be studied to determine the true scope and content of this invention.